

INSTITUTUM  
SERO-BACTERIOLOGICUM  
UNIVERSITATIS

HELSINKI -- HELSINGFORS  
SUOMI -- FINLAND

Helsinki 11th March, 1959  
Helsingfors

Professor J. Lederberg  
Department of Genetics  
School of Medicine  
Stanford University  
Stanford, California

Dear Professor Lederberg,

Thank you for the kind greeting from Stockholm  
last December.

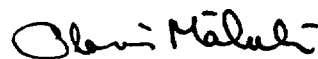
I have been informed that a fellowship has been awarded  
to me for research work at Stanford University. Thus I can  
confirm our agreement on my part. As soon as possible I shall  
let you know the scheduled day of arrival in September.

Dr. Ensgraber has written to me and described the  
technique used by him when he studied the glycosidase activ-  
ity of lectin preparations. A copy of the letter is enclosed.  
I also enclose a manuscript which describes the ability of  
lectins to differentiate between  $\alpha$  and  $\beta$  glycosides. We  
have continued these experiments by studying germinating  
seeds of Pisum sativum (containing a lectin which is inhibited  
by  $\alpha$ -glucosides) and Laburnum alpinum (contains a lectin  
which is inhibited by  $\beta$ -glucosides). The seeds were ground  
and extracted with 0.1 M phosphate buffer, pH 5.9. The centri-  
fuged extract (one part) was mixed with 1 % aqueous sugar  
solution (five parts) and the mixture incubated at 37° for  
48 hours. Both extracts splitted maltose ( $\alpha$ -glucoside) but  
not cellobiose ( $\beta$ -glucoside).

The above results seem not to support the view that  
lectins and glycosidases have connections. However, I should  
very much like to continue this line at Stanford if possible.  
The bacterial glycosidases and hemagglutinins would be  
especially interesting.

With kind regards,

Sincerely yours



Olavi Mäkelä